UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/709,759	11/09/2000	Yee S. Liaw	644-001	4751

7590 10/16/2006

Ward & Olivo
382 Springfield Avenue
Summit, NJ 07901

EXAMINER	
NGUYEN, DUSTIN	
ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/709,759	LIAW ET AL.	
	Examiner	Art Unit	
	Dustin Nguyen	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-9,11,12 and 16-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-9,11,12 and 16-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 4-9, 11, 12, 16-28 are presented for examination.

Response to Arguments

2. Applicant's arguments filed 07/31/2006 have been fully considered but they are not persuasive.

3. As per remarks, Applicants' argued that (1) Dickens fails to teach a system and method for enabling a plurality of users to simultaneously access, operate, and control a plurality of remotely located computers.

4. As to point (1), In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a plurality of users to **simultaneously** access, operate, and control) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In addition, Dickens discloses a system for enabling a plurality of users to access, operate, and control a plurality of remotely located computers [i.e. these computers are often grouped together in a computer room and connected to a keyboard/video/mouse switch] [col 3, lines 25-53]. Also, Beasley discloses the above

limitation [i.e. allows a number of server computers to be coupled to a number of workstations] [Figure 1; and col 3, lines 1-19].

5. As per remarks, Applicants' argued that (2) both Dickens and Beasley fail to teach a system that includes a switch unit for receiving keyboard and cursor control device signals, and propagating a new, emulated signal to the intended destination based upon command data transmitted with the signals.

6. As to point (2), Beasley discloses the above limitation [i.e. commands sends from the remote computer to the central crosspoint switch are received by and octal UART 173 where the commands are converted from a serial to a parallel format, the UART feeds the commands to the CPU 170 where they are interpreted and forwarded to the master CPU] [col 6, lines 41-58].

7. As per remarks, Applicants' argued that (3) Wilder fails to teach each of the plurality of computer interface modules receives power from one of the remote computers.

8. As to point (3), it is rejected for similar reasons as mentioned in previous Office Action. Furthermore, Wilder discloses each of the plurality of computer interface modules [i.e. On Screen Display (OSD) user interface] receives power from one of the remote computers [i.e. power control unit may be located proximate computers 18, 20, 22 and 24, which may be remotely located from KVM switch and OSD interface] [Figure 3; col 1, lines 30-45; and col 4, lines 5-12].

9. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of the references because it would allow centrally located network administrators to operate multiple server computers over long distances without requiring a complicated wiring scheme and allows data transmission between a workstation and a remotely located server computer [Beasley, col 1, lines 49-54].

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 4-9, 12, 16, 17, 19-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickens et al. [US Patent No 6,618,774], in view of Beasley et al. [US Patent No 5,937,176].

12. As per claim 4, Dickens discloses the invention substantially as claimed including a computer switching system comprising:

a user interface device for multiplexing signals output from a connected keyboard and cursor control device and for providing an interface to a video display [101, Figure 1; and col 15, lines 34-45];

switch unit coupled to said user interface device by a single first connection [100, Figure 1; and col 15, lines 7-10]; and

wherein video signals output from said remotely located computers are transmitted to said video display via said switch unit [104, Figure 1; and col 15, lines 34-37];

wherein said user interface device comprises an amplification circuit for automatically amplifying said transmitted video signals based on at least a synchronization signal transmitted with a component of said video signal [i.e. gain amplifiers] [303, 304, Figure 3; and col 18, lines 34-67].

Dickens does not specifically discloses

a switch unit for enabling communication between said user interface device and a plurality of remotely located computers; and

a plurality of computer interface modules each coupled to said switch unit by a single second connection, each of said computer interface modules couples to at least one of said remotely located computers;

wherein said user interface device receives keyboard and cursor control device signals, packetizes at least one of said keyboard or cursor control signals and transmits said packetized signal with command data to said switch unit; and

wherein said switch unit interprets said command data which identifies at least one of said remotely located computers, generates an emulated keyboard or cursor control device signal based on said packetized signal and transmits said emulated signal to said identified remotely located computer.

Beasley discloses

a switch unit for enabling communication between said user interface device and a plurality of remotely located computers [60, Figure 1; Abstract; and col 3, lines 1-18]; and

a plurality of computer interface modules each coupled to said switch unit by a single second connection [152A-D, Figure 4; and col 6, lines 15-27], each of said computer interface modules couples to at least one of said remotely located computers [52-56, Figure 1; and col 3, lines 1-29];

wherein said user interface device receives keyboard and cursor control device signals [70, Figure 1; and col 3, lines 38-49], packetizes at least one of said keyboard or cursor control signals and transmits said packetized signal with command data to said switch unit [Figures 2A; Abstract; and col 3, lines 49-col 4, lines 10]; and

wherein said switch unit interprets said command data which identifies at least one of said remotely located computers [Figure 2B; col 4, lines 63-col 5, lines 12; and col 6, lines 47-58], generates an emulated keyboard or cursor control device signal based on said packetized

signal and transmits said emulated signal to said identified remotely located computer [col 1, lines 60-65; and col 5, lines 27-56].

It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Dickens and Beasley because Beasley's teaching of plurality of remotely located computers would allow to provide the ability for system administrators to control multiple computers remotely so that maintenance time can be reduced and increase productivity.

13. As per claim 5, Dickens discloses wherein said at least one of said first and second connections comprise a series of twisted pair conducting wires [Figure 1; and col 1, lines 34-40].

14. As per claim 6, Dickens discloses wherein each said component of said video signals is transmitted on one of said twisted pair conducting wires, and wherein said keyboard and cursor control device signals are transmitted on a separate one of said twisted pair conducting wires [200-203, Figure 2; col 15, lines 63-66; col 16, lines 4-6; col 17 lines 19-23; and col 17, lines 29-40].

15. As per claim 7, Dickens discloses wherein said synchronization signal is transmitted with one of said components of said video signals on one of said twisted pair conducting wires [col 2, lines 9-18].

16. As per claim 8, Dickens discloses wherein said synchronization signal is decoded by said user interface device [i.e. signal separator] [col 24, lines 44-50].

17. As per claim 9, Dickens discloses wherein said command data is transmitted with said keyboard and cursor control signals on a separate one of said twisted pair conducting wires [col 4, lines 27-36].

18. As per claim 12, Dickens discloses wherein said amplification circuit amplifies the amplitude and frequency components of said video signals by analyzing said synchronization signal [col 10, lines 28-38].

19. As per claim 16, Dickens discloses wherein said synchronization signal is a horizontal or vertical synchronization signal [col 1, lines 17-20].

20. As per claim 17, it is rejected for similar reasons as stated above in claims 1, 12-16. Furthermore, Dickens discloses wherein one of said computer interface modules receives video signals having red, green, and blue components from one of said remote computers [col 9, lines 19-37] and encodes synchronization signals onto at least one of said components for transmission to said user station through said switch [col 26, lines 3-7].

21. As per claims 19 and 20, they are rejected for similar reasons as stated above in claims 5 and 6.

22. As per claim 21, Dickens discloses synchronization signals are encoded as negative signals [col 25, lines 1-3].

23. As per claim 22, it is rejected for similar reasons as stated above in claim 16.

24. As per claim 23, Dickens discloses wherein said user station compares said synchronization signals to a signal of known shape to determine a degradation of said synchronization signals [col 9, lines 52-56].

25. As per claim 24, Dickens discloses wherein said user station amplifies said one or more frequency components of said video signals to compensate for said degradation [300-302, Figure 3; and col 18, lines 43-51].

26. As per claim 25, it is rejected for similar reasons as stated above in claims 1 and 17. Furthermore, Dickens discloses amplifying at least one frequency component of said video signals to produce tuned video signals for display at said user station [col 10, lines 24-27].

27. As per claim 26, it is rejected for similar reasons as stated above in claim 17.

28. As per claims 27 and 28, they are rejected for similar reasons as stated above in claims 13, 14 and 16.

29. Claims 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickens et al. [US Patent No 6,618,774], in view of Beasley et al. [US Patent No 5,937,176], and further in view of Wilder et al. [US Patent No 6,557,170].

30. As per claim 11, Dickens and Beasley do not specifically disclose wherein each of said plurality of computer interface modules receives power from one of said remote computers. Wilder discloses wherein each of said plurality of computer interface modules receives power from one of said remote computers [Figure 3; Abstract; and col 3, lines 51-col 4, lines 12]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Dickens, Beasley and Wilder because Wilder' teaching of power control would allow to easy manage and control the power source of the devices.

31. As per claim 18, it is rejected for similar reasons as stated above in claim 11.

32. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (571) 272-3971. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached at (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dustin Nguyen

Examiner

Art Unit 2154

JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100